

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

1.-20. (Canceled)

21. (New) An apparatus for detecting an impact of a moving object, in particular of a vehicle, comprising:

a first sensor device for acquiring an acceleration in an acquisition direction that is coincident with a direction of motion of the moving object, and for outputting a first acceleration signal dependent on the acceleration;

an evaluation device for evaluating the first acceleration signal in such a way that a classification of the impact is made available by a classification signal;

an output device for outputting the classification signal to an external control device; and
at least one second sensor device for acquiring an acceleration in an acquisition direction that is different from the direction of motion of the moving object, and for outputting at least one second acceleration signal dependent on the acceleration, wherein:

the at least one second acceleration signal depends on the acceleration being employed for evaluation, in the evaluation device, for evaluating the first acceleration signal, in such a way that a classification of the impact by way of the classification signal as a function of accelerations in at least two directions of motion is made available.

22. (New) The apparatus as recited in Claim 21, wherein the first sensor device includes an acceleration sensor.

23. (New) The apparatus as recited in Claim 21, wherein the evaluation device includes a rotation sensing unit for determining a rotation of the moving object and for outputting a rotation signal dependent on the rotation.

24. (New) The apparatus as recited in Claim 21, wherein:
the evaluation device includes a first impact strength determination unit for determining an impact strength in the acquisition direction that is coincident with the direction of motion of the moving object , and
the first impact strength determination unit outputs a first impact strength signal.
25. (New) The apparatus as recited in Claim 24, wherein:
the evaluation device includes a second impact strength determination unit for determining the impact strength in the acquisition direction that is in the direction of motion of the moving object, and
the second impact strength determination unit outputs a second impact strength signal.
26. (New) The apparatus as recited in Claim 21, wherein the at least one second sensor device includes an acceleration sensor.
27. (New) The apparatus as recited in Claim 21, wherein the first sensor device and the at least one second sensor device are part of a single two-dimensional acceleration acquisition unit.
28. (New) The apparatus as recited in Claim 21, wherein the first sensor device and the at least one second sensor device are part of a single three-dimensional acceleration acquisition unit.
29. (New) The apparatus as recited in Claim 21, wherein the first sensor device and the at least one second sensor device have acquisition axes that are perpendicular to one another.
30. (New) The apparatus as recited in Claim 21, wherein the first sensor device is embodied in duplicate, and the duplicates are disposed on the moving object with a lateral spacing from one another.
31. (New) The apparatus as recited in Claims 3, wherein the evaluation device includes a calculation unit for calculating the classification signal as a function of the rotation signal and a plurality of impact strength signals.

32. (New) The apparatus as recited in Claim 21, wherein:
the evaluation device includes a correction unit for correcting the first acceleration signal by way of the at least one second acceleration signal, and
the correction unit outputs a corrected first acceleration signal.
33. (New) A method for detecting an impact of a moving object, comprising:
acquiring a first acceleration in an acquisition direction that is coincident with a direction of motion of the moving object using a first sensor device;
outputting from the first sensor device a first acceleration signal dependent on the acceleration;
evaluating the first acceleration signal in an evaluation device, in such a way that a classification of an impact is made available by way of a classification signal;
outputting the classification signal to an external control device by way of an output device;
acquiring a second acceleration in an acquisition direction that is different from the direction of motion of the moving object by way of at least one second sensor device; and
outputting the second acceleration as at least one second acceleration signal dependent on the second acceleration, wherein:
the at least one second acceleration signal dependent on the second acceleration is employed for evaluation, in the evaluation device for evaluating the first acceleration signal, in such a way that the classification of the impact by way of the classification signal as a function of the first acceleration and the second acceleration in one of two directions of motion and three directions of motion is made available.
34. (New) The method as recited in Claim 33, further comprising:
determining a rotation of the moving object in a rotation sensing unit that is included in the evaluation device; and
outputting a rotation signal dependent on the rotation of the moving object from the rotation sensing unit.
35. (New) The method as recited in Claim 33, further comprising:
determining an impact strength in the acquisition direction that is coincident with the direction of motion of the moving object by way of a first impact strength determination unit that is included in the evaluation device; and
outputting a first impact strength signal from the first impact strength determination unit.

36. (New) The method as recited in Claim 35, further comprising:
determining a second impact strength in the acquisition direction that is in the direction of motion of the moving object by way of a second impact strength determination unit that is included in the evaluation device; and
outputting a second impact strength signal from the second impact strength determination unit.
37. (New) The method as recited in Claim 34, further comprising:
calculating the classification signal in a calculation unit that is included in the evaluation device, as a function of the rotation signal and a plurality of impact strength signals.
38. (New) The method as recited in Claim 33, further comprising:
correcting the first acceleration signal by way of the at least one second acceleration signal in a correction unit that is included in the evaluation device; and
outputting a corrected first acceleration signal from the correction unit.
39. (New) The method as recited in Claim 34, wherein the rotation of the moving object is determined, in the rotation sensing unit that is included in the evaluation unit, in such a way that the first acceleration signal and the at least one second acceleration signal of individual acquisition directions are accumulated.
40. (New) The method as recited in Claim 34, wherein:
a switchover to a fallback level occurs if the second acceleration acquired by the at least one second sensor device in an acquisition direction that is different from the direction of motion of the moving object exceeds a predetermined proportion of the first acceleration acquired by the first sensor device in an acquisition direction that is coincident with the direction of motion of the moving object.
41. (New) The apparatus as recited in Claim 21, wherein the moving object includes a vehicle.
42. (New) The method as recited in Claim 33, wherein the moving object includes a vehicle.